

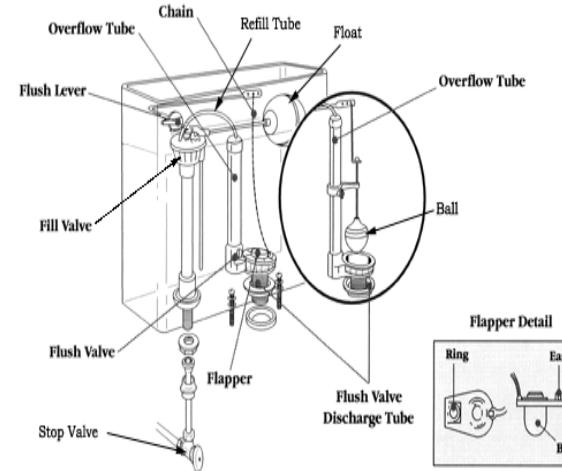
IDENTIFYING AND REPAIRING TOILET LEAKS

Toilet leaks are the most common household leak, so the toilet should be the first fixture to check when your water consumption increases. If your meter indicates a leak, by constantly turning (see pamphlet entitled “Reading Your Water Meter”), your toilet can be isolated by turning off the Stop or Shut-Off Valve at the wall beneath the toilet tank. If the valve is turned off and your meter stops turning, you have found the source of the leak.



Information Provided By:

THE LOS OSOS
COMMUNITY SERVICES DISTRICT
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The following information *does not* apply to pressure-assist toilets (if you look inside your toilet tank, there is no freestanding water visible). The repair of a pressure-assist mechanism is a task best left to a plumbing professional trained in the service of these devices. The following, in order from most common to least common, are four areas where gravity-fed toilet leaks occur.

1. **THE FLAPPER** — found in standard gravity-fed toilets, is the round rubber disk at the bottom of the tank. By lifting off the lid, you notice that the flush handle connects to the “chain” which connects to the flapper. By pushing the handle down, the chain lifts the flapper which releases water to flush the bowl. Flappers last about 2-5 years before they begin to degrade and allow water to leak. This is the most common source of toilet leaks and is usually the cause of a toilet turning on and off periodically.

Flapper leaks commonly turn on and off, so they are not always detectable by checking the meter to see if it is turning. If you do see your meter moving when no one is using water or if the toilet seems to flush by itself, the flapper is probably the culprit.

To verify the nature of your problem, do a dye test. Mix dark food coloring (instant coffee, powdered fruit drink mix or the dye tablets provided in the District’s Water Conservation Kits) with the toilet tank water. If your flapper is leaking, or if your water level is set too high, you will see the bowl water begin to discolor within about five minutes as the food coloring leaks into the bowl. If your water level does not need to be adjusted (see “Overflow Tube”) you have a leaky flapper.

To replace a leaky flapper, turn off the valve at the wall, flush the toilet, then unhook the old flapper. There is a round outlet at the base of the tank that the flapper sits against. Run your finger around the top edge of this outlet to feel for nicks, scratches or other irregularities. A rough surface here can cause water to leak past a perfectly good flapper. If the surface is damaged then you will have to unbolt the tank and replace this outlet and flapper. Once replaced, do a dye test again to check for a good seal.

2. **FILL VALVE or BALLCOCK** — can waste several hundred gallons of water per day. If poorly adjusted and the water level is too high, water will seep continually into the overflow tube. Fill valves/ballcocks also tend to wear over time so that they run or seep regardless of how they are adjusted. A problem fill valve/ballcock should be adjusted, rebuilt with new seals, or replaced.

When adjusting the fill valve/ballcock, do not bend the float arm or any other parts to lower the water level as it may cause mechanical problems. Water levels may be adjusted by turning the adjustment screw on the fill valve/ballcock.

Fluidmaster ballcocks are different. Water levels may be raised or lowered by adjusting the float that rides up and down beneath the ballcock. Simply pinch the stainless steel clip at the side of the float and move it up or down the thin rod that it rides on.

3. **THE OVERFLOW TUBE** — is a 3/4” diameter tube that rises vertically from the center of the tank. It empties into the bowl and prevents water from overflowing your toilet should something go wrong. High water levels in the tank can cause water to flow down the tube and into the bowl. Water levels should be adjusted to the appropriate level line, found either on the overflow tube or on the inside back of the tank.

4. **THE FILL TUBE** — is not found in all toilets, but is a 1/4” diameter flexible plastic tube. Beginning at the fill valve/ballcock, it arches across the tank and inserts into the overflow tube. Its purpose is to rinse the sides of the bowl while the tank is filling. A ballcock may develop a leak through the fill tube that is not easily seen or heard. If all efforts fail to find a toilet leak, this may be the culprit. A common leak is caused by the tip of the fill tube being placed below the water level of the tank—a siphoning action may occur. To stop the leak, simply lift the end of the tube above the water level, or lower the water to the appropriate level.

TOILET TUNE-UPS

In most instances it is quite simple to tune-up the toilet as the basic parts have not changed much over the years. Some common causes of a running toilet may be:

- Water level in toilet tank is too high
- Toilet fill valve is broken
- Flush valve flapper is leaking

Or, if a toilet is not flushing correctly:

- Water level in toilet tank is too low
- Waste line is clogged

TOILET BOWL CLEANERS

Dropping certain toilet bowl cleaners into your toilet tank may result in damage to the parts within the tank. Some manufacturers may even void the warranty on your toilet if you use these tablets.



BASIC PLUMBING REPAIR TIPS

- Know the location of the master valve to shut off the water supply to the house before attempting any repairs
- Turn clockwise or “righty-tighty” to tighten a fitting and counter-clockwise “lefty-loosey” to loosen a fitting
- Turn off the shutoff valve under the fixture being repaired. If there is no shutoff valve or you are replacing a malfunctioning shutoff valve, turn off the house master valve. Some homes in Los Osos do not have house master valves, please contact the Utilities Department for assistance in shutting off water at the meter.
- Keep towels and buckets handy for spills
- Have the basic tools: regular and Phillips-head screwdrivers; channel lock pliers; adjustable wrench; and hex-key wrenches (often included in repair kits for ball type faucets)
- Use penetrating oil such as Liquid Wrench to help loosen frozen bolts and valves (Note: WD-40 spray lubricant will not work as effectively as penetrating oil)
- Plug the sink for faucet repairs so parts don’t fall down the drain

- Note the order in which you disassemble faucets or any plumbing fixture or make a sketch of the fixture
- Do home repairs during hours when hardware stores are open so you can purchase parts and tools when necessary.
- Keep the old worn parts and take them to the hardware store to find the right replacement parts
- When tightening or loosening plumbing fittings such as supply tubing, use two wrenches: one to hold the sitting stationary while turning the other. This will prevent stress and possible breaking supply tubing or pipes.

- from the California Urban Water Conservation Council's Practical Plumbing Handbook www.cuwcc.org

RESOURCES/WEBSITES

- Links to water conservation sites can be found at www.losososutilities.org/waterconservation/links.html
- Flush Performance for over 200 toilets www.cuwcc.org/MapTesting.lasso
- Flapper replacement information with listing of flapper part numbers for many toilet fixture models www.toiletflapper.org
- Toilet maintenance and repair information www.toiletology.com/index.shtml
- Trouble-shooting information from the largest maker of toilet repair parts www.fluidmaster.com/dr_flush.html